Investigating the Way Soccer Coach Education Discusses Player Learning Styles

Claire Mulvenna, St. Mary's University, UK
Mark Moran, University of Bolton, UK
Anika Leslie-Walker, University of Bolton, UK

Abstract: Formal coach education programs have seen a significant increase in the number of coaches attending and completing recognized coaching awards and qualifications recently. However, research has demonstrated that such formal coach education has limited impact on the practice of the coach when they return to working with their players. To date coach education research has failed to analyze the way in which learning styles have been presented on such awards and qualifications and the impact such knowledge may have on the coaches' practice. As such, research to investigate the promotion of learning styles within a coach education environment took place to establish if coach education promotes the use of specific teaching strategies for particular learners via the use of learning styles. The research process included semi-structured interviews with eight Football Association Level One Award Coaches, who identified that they were clearly and explicitly introduced to the concept of VARK learning styles during their coach education experiences. These findings demonstrate entry-level soccer coaches in the UK are encouraged to place the learning style of a player at the center of learning despite the suggestion from research that learning styles have a negligible impact on learning. The research also demonstrated that coach educators and the curriculum of coach education courses failed to utilize current research to reflect the latest teaching and learning strategies.

Keywords: Learning Styles, Soccer, Coach Education

Introduction

The National Governing Body (NGB) for soccer in England is The Football Association (The FA). The FA's four-year strategic plan (2016–2020) has four key aims that focus on the creation of successful England teams, the development of inspirational venues for soccer, the doubling of participation figures of women in soccer, the development of a world-leading coaching program, and the growth of flexible playing opportunities for all (The FA 2018a). As one of the four key priorities of The FA, coach education finds itself at the forefront of the FA's actions and activities. The FA coordinates coach education for soccer in England, running entry-level courses (The FA Level One Coaching Certificate) through to the Union of European Football Association (UEFA) Standards "A" Certificate for community and elite coaches to attend. Coach education such as The FA Level One Coaching Certificate is classified as formal coach education (Nelson, Cushion, and Potrac 2006) and plays a role in coaches' learning and development.

Nelson, Cushion, and Potrac (2006) have proposed that coaches' learning is made up of three key components: formal (e.g., coaching education courses); non-formal (e.g., coaching conferences); and informal (e.g., player and assistant coaching experience). Formal coach learning such as the FA Level One Coaching Certificate aspires to upskill coaches and attempts to assure the "competence of the practitioner" (Lyle 2002, 275) in line with pre-determined competences set by the FA. Coach education programs are a key contributor to coaches' knowledge base and development (Werthner and Trudel 2006; Morgan 2006; Potrac, Jones and, Armour, and Potrac 2002), and the coach educators delivering such programs coordinate activities that aim to convince participants partaking in coach education that there is a correct way of thinking and behaving as a coach (Rogers 2002). The FA Level One Coaching Certificate is described as the "first stepping-stone on the core coaching pathway" (The FA 2018b). The structure of the FA Level One Coaching Certificate is focused on the delivery of eight face-to-face workshops and three e-learning modules. The content of the face-to-face delivery includes a key focus on "The England DNA (How We Coach, How We Play, How We Support and The

Future Player)" (The FA 2018b). In contrast the topics on the e-learning modules include long-term player development, the role of the coach, and The FA "Plan, Do, Review" model of coaching (The FA 2018b).

The teaching and learning carried out on coach education programs is currently focused on behaviorist and cognitive approaches to learning, which see coach education encouraging a teaching and learning process based on the transfer of knowledge from the coach educators to the coaches in attendance (Cassidy 20104 [date does not match reference list—please verify and add reference if necessary]; Trudel and Gilbert 20054 [does not match reference, which is listed as Gilbert and Trudel 2005 but alphabetized under W in ref list. Please verify and make necessary adjustments]). Despite this form of delivery, coaches have displayed a preference to learn through more constructivist methods of learning (Erickson et al. 2008; Irwin, Hanton, and Kerwin 2004;- Jones, Armour, Jones and Potrac and Potrac 2004). While a behaviorist approach sees the coach educator take the lead in the learning process, a constructivist approach sees the coach lead the learning process through such activities as reflection and communities of practices (Stoszkowski and Collins 2014). Coach education research has focused on "the role [of the sports coach], [as well as the] nature and impact of coach education programs" (Chesterfield, Potrac and Jones 2010, 300); however, there is limited research investigating the content of coach education courses that is focused on learning styles or evaluating the learning experiences of coaches attending coach education courses.

A key emphasis of the FA level One Coaching Certificate is to give coaches the skills to build, develop, and extend practice "for your players" (The FA 2018c). The emphasis is on providing coaches with the skills to allow them to plan and lead coaching sessions that meet the needs of all their individual players. As such the course does not focus on the teaching strategies required for motor skill development but focuses on holistic individual player development and adapting teaching styles to meet the needs of a diverse range of individual learners. Learning styles are recognized as the theory that individuals vary in respect to the format of instruction or study that is most effective for them whilst learning (Barry and Egan 2017; Pashler et al. 2008). Cuthbert (2005, 236) states that the term "learning style" has evolved little since the phrase implied by Kolb (1984) and Honey and Mumford (1986) to describe "an individual's preference for understanding his/her experiences and transforming them in to knowledge." This multifaceted definition of what a learning style is has previously been exemplified by the presentation of numerous formats of learning styles. Coffield et al. (2004) have identified seventy-one different models of learning styles, which include categorizations of "verbal" versus "auditory" learners; "globalists" versus "analysts"; and "left brainers" v "right brainers." Despite the multitude of different models illustrating alternative forms of learning styles, such categories lack clear specific definitions, fail to include explanatory frameworks, and are theoretically unclear (Coffield 2012), therefore building a clear case for the misunderstanding of learning styles.

Despite this negativity, learning styles are routinely used in educational practice (Cuevas 2015; Bishka 2010; Fridley and Fridley 2010; Riener and Willingham 2010). Pashler et al. (2008, 1) state "the learning-styles view has acquired great influence within the education field, and is frequently encountered at levels ranging from kindergarten to graduate school." A common premise of the learning styles theory is that every learner has a preferred format in which the information being learned should be presented and that learning could be improved by the matching of teacher's instruction to the preferred learning style of the learner (Riener and Willingham 2010; Pashler et al. 2008). The VARK learning style inventory (Fleming and Mills 1992) is a popular assessment tool used to categorize the so-called learning style of an individual and is designed to measure four different perceptual preferences:

- Visual (V)—a preference for graphical and symbolic representation of information.
- Aural (A)—a preference for "heard" information.
- Read/write (R)—a preference for information printed as word.

- Kinesthetic (K)—a preference information to be experienced by example, practice, or simulation. n" [unclear where quotation begins] (Fleming and Mills 1992), [page number for quote]).

The VARK questionnaire for athletes and sports players was created to allow coaches "to tailor instruction by matching the perceptual preference of athletes with instructional method" (Braakhuis 2015, 928). The athletic version of the VARK inventory (Dunn 201304) was developed to allow coaches and their players to have a clear understanding of their own learning style preferences and the preferences of other players and coaches. It is argued by learning-style enthusiasts that if a coach can understand the different learning perceptions and styles of their players, it has the potential to greatly aid a coach in the way they communicate and the effectiveness of this communication (Dunn 201309). It is projected that learning styles offer coaches who are aware of and cater to their players learning styles, a potentially greater opportunity to learn and develop performance in a positive way (Stevens-Smith and Cadorette 2012).

Recent research on learning styles, however, suggests that while they have been central to pedagogical discourse for a number of decades, teaching and learning strategies should use other practices to develop learners (Barry and Egan 2017; Riener and Willingham 2010; Pashler et al. 2008; Dembo and Howard 2007). Riener and Willingham (2010) state that whilst individuals do have preferences about the format information is presented in, when these tendencies are put to the test under controlled conditions they have no impact on the process of learning. Rogowksy, Calhoun, and Tallal (2015) [no corresponding entry in reference list – please add] found there was no statistically significant relationship between learning mode and the preference for a specific learning style. Similarly, Massa and Mayer (2006) found no evidence to support the use of different instructional methods and learning. Focusing on pictorial and verbal information, Mass and Mayer (2006) found learners identifying as visual learners and aural learners experienced no benefit in terms of their rate of learning when presented with information in their preferred format. In comparison, Constantidinou and Baker (2002) found there was no relationship between the rate of learning for alleged visual learners when presented with information in a visual or auditory manner. Learning is seen to be equivalent and takes place whether an individual's learning style is catered to or not. Likewise, Pashler et al. (2008) state there is little evidence of any real practical use to educators of identifying their learners' learning styles. While the learner should still remain at the center of the education process, it is the task being learned that should guide the learning activities and the teacher's communication instead of the preferred learning style of the learner (Riener and Willingham 2010).

Hence, the purpose of this study was to a) establish whether entry-level coaches are introduced to the concept of learning styles in coaching awards, and b) investigate perceptions held by coaches regarding the validity of learning styles and identify the way in which coaches believed they utilized knowledge on learning styles.

Method

This study was carried out using an interpretivist approach that understands reality as a representation of an individual viewpoint, centering on the way in which human beings make sense of their subjective reality and attach meaning to it (Weber 1968) [no corresponding entry in reference list – please add]. The use of interpretivism in this study allows a process of investigation to occur into the methods and techniques of entry-level soccer coaches and their experiences whilst on formal coach education courses. A qualitative method was employed in this study to allow the coaches' experiences of coach education and their coaching practice to be explored in detail.

Participants

Six male and two female volunteer community soccer coaches, ranging from 18 to 37 years of age, participated in the study. A relevant sample was identified by applying a number of pre-conditions. The volunteer community soccer coaches needed to have a) completed the Football Association Level 1 Coaching Certificate (FA Level 1 hereafter) in the twelve to twenty-four months prior to interview, and b) currently be volunteering at a community soccer club as either a lead or assistant coach. All participants had completed their FA Level 1 from the same County FA within the North West of England. The period of twelve to twenty-four months from completion of the FA Level 1 was selected to allow the coaches time to embed practices and concepts introduced to them in the FA Level 1 in their coaching.

All eight coaches worked with an age group of under 11 or below at their current club. The coaches had between two and six years' experience as volunteer coaches, and seven of the eight coaches were either current undergraduate students, or had graduated within the last twelve months, on a sports degree that included specific sports coaching modules.

Procedure

Semi-structured interviews were identified as the most appropriate method of data collection to allow coaches to express their thoughts and permit the researchers to delve in to responses and analyze the replies given.

Institutional ethical approval was obtained and purposive sampling was carried out to identify suitable coaches. Purposive sampling allowed participants to be selected from a specific list of selection criteria as opposed to random sampling (Teddlie & Tashakkori and Teddie 201003) [no corresponding entry in reference list – please add]. All participants provided informed written consent to participate in the study.

An interview guide was piloted on three soccer coaches who were not volunteering at the time of the interview but who had completed their FA Level 1 twenty-four months before the data collection took place. This allowed researchers to make minor changes to the order of the questions following the pilot study to ensure the interview guide was more consistent in the line of questioning. Prior to each interview, the coaches were contacted via email and provided with basic information about the study. The purpose of this pre-interview exchange was to confirm the suitability of the coaches to participate in the study and to provide information on the confidentiality of findings from the study. This information was then referred to at the start of each interview where interviewees were provided with information on the purpose of the study. Participants were interviewed once at the mid-point of the season.

The semi-structured interview guide was organized to gain responses associated with a) current coaching practice, b) key messages of the FA level 1 related to learning, c) the development of understanding of learning styles, and d) the role played by learning styles in the coaches current practice. All the interviews were transcribed verbatim and were then shared with the coaches for verification to ensure the transcripts were a true reflection of the interviews. All eight coaches verified the transcripts; all coaches were provided with pseudonyms during the transcription process and only these are referenced in the results section of the study (e.g., Coach 1 = Steve).

Analysis

The interviews were transcribed and coded using critical thematic analysis; latent themes were identified to allow underlying ideas, assumptions, and concepts to be classified (Braun and Clarke 2006). Data analysis was carried out using Braun and Clarke's (2006) process of thematic analysis. This was completed to ensure key themes and concepts from each interview were classified and to identify common aspects across all eight interviews. Immediately following

each interview, a post-interview recording sheet was completed to document the researchers' immediate thoughts and feelings towards the interview. The first stage of analysis then involved the lead researcher familiarizing themselves with the data by transcribing the interview verbatim and including all verbal and non-verbal utterances in the transcription to allow the transcripts to maintain a factual reflection of the verbal account. The second stage of analysis involved generating initial codes, which was done by coding line by line each transcript to highlight potential themes and patterns. These themes were then organized into latent themes that exposed underlying ideas, concepts, and assumptions in the third phase. The latent themes were then reviewed in the fourth stage of analysis before being defined and named in the fifth stage of analysis. The final stage of analysis involved specific examples being selected from the interview transcripts to provide sufficient examples of the themes.

Results

Following analysis, two higher-order categories and three lower-order categories were identified. The higher-order categories were facilitating shared perceptions of learning styles (e.g., the guidance offered by coach educators regarding learning styles) and learning styles as a standard discourse (e.g., the single continuing belief in learning styles ~~being focused on four different perceptual preferences~~—VARK). The first higher-order category represents the role played by the coach education environment in embedding the beliefs coaches have regarding learning styles. The second higher-order category represents the continued way behaviors, opinions, and knowledge regarding learning that are developed through experiences on coach education are evident in a coache's practice after the completion of a coach education certificate.

Facilitating Shared Perceptions of Learning Styles

The first higher-order category describes the common opinions and views regarding learning styles that were formed through the participation of the volunteer community soccer coaches in the FA Level 1. More precisely, this involves two sub themes: VARK—the solo learning styles format; and visual learners—the principles of support and the process of learning.

VARK: The Solo Learning Styles Format

Learning styles were presented by coach educators to the coaches in this study as being a preference a player has for a specific form of communication, which will act as a direct route to obtaining new sporting skills. The only learning styles presented by coach educators to the coaches in this study were of visual learners, aural learners, read/write learners, and kinesthetic learners. Ian described how the coach educators introduced learning styles:

> They [coach educators] made out kids, children, adults learn in different ways. So, you've got your visual learners, you've got to try and balance the methods you [use] to put across a session.

Reflecting on learning styles and the information provided by coach educators on the FA Level One, Sam said:

> He [the coach educator] did say some people learn visually, some people learn when speaking to them so you have to use various ways of communicating because of different people, so even sometimes you had to do a drill so some people learn that way as well.

The coaches in this study were clear that the message sent from coach educators regarding learning styles was that players learned through communication that targeted a specific sense and that learning was improved the more effective the communication was to the specific learning style of the player. As such the learning styles discussed by the coach educators to the coaches in this study focused on the VARK learning styles inventory.

To develop a player's technical and tactical skills, it was considered necessary to discover every player's individual learning style and adapt the method of communication as needed to allow each individual to learn. Rebecca said:

> The tutors talked about learning styles and said each player would have a different one, a different learning style, so some would be visual, some audio and some kinesthetic and you know you had to communicate differently for them to learn.

Similarly, Dave stated:

> He [the coach educator] said we [coaches] should take into account everyone's different ways of learning so we [coaches] had to be wary…that some people are visual some people you can't just say it and they will learn.

These examples display that the VARK learning styles inventory was the principle learning styles method discussed by coach educators on the FA Level One.

The recommendation from coach educators was that a coach should discover and then cater to the individual learning style of a player by communicating in the preferred format of that individual, as this would encourage learning to take place. The recommendation was made by coach educators that this could be done through demonstration for a visual learner or verbal instructions for an aural leaner. The process that takes place to encourage learning from this communication was not however explained. Rebecca stated:

> So we got told about visual learners, audio learners, kinesthetic learners but never really the way people learn, like how does a player go from seeing something on a whiteboard to actually doing what they are learning well. I never really got it."

Likewise, Michelle said:

> Repetition wasn't really talked about, not to do with learning. We were told about different learning styles but not really about the link of a drill or game and that repetition to learning.

Instead, the message was provided from coach educators on the FA Level One that if a coach can discover the learning style of their players and instruct them using this method of communication the player would learn.

Coaches running technical skills sessions for new players were recommended to cater to individual learning styles, to communicate using appropriate methods, and to encourage repetition; however, coach educators failed to explain the process of learning that used these three key factors. Sam explained that:

> They [coach educators] say they [players learning a new technical skill] won't learn on the first day and you have to go back to it [the skill being learned] but we were never really told how or why.

Tom further discussed the need to revisit activities but stated that the discussion on why repetition was needed was only briefly touched upon in his FA Level One. Tom stated

> They [coach educators] talked about the 10,000 hours rule and had a conversation about whether it is true, but that was the only example they gave of repetition and they kind of argued for it and against it [repetition].

This quote exemplifies the lack of discussion on the process of learning that took place on the FA Level One courses of the coaches who participated in this study.

Visual Learners: The Principles of Support and the Process of Learning

In the delivery of the FA Level One that the coaches in this study attended, the most prevalent learning style presented was that of a visual learner with multiple methods presented of how to tailor coaching to this learning style. Michelle stated:

> The main learning style they told us about was visual. They [coach educators] spoke a lot about using a whiteboard. It was 'introduce an activity by using the whiteboard', 'develop an activity using the whiteboard'. They [coach educators] said we could draw on the whiteboard, use magnets as if they were players. This would help those visual learners get it, you know, understand and learn.

The coaches expressed an excitement when introduced to the white board in the FA Level One; they discussed their enjoyment of using a whiteboard and the way they continued using one in the coaching sessions that took place after the FA Level One. Dave exemplified this opinion saying:

> It was the first time I'd seen a whiteboard in coaching and I really liked it. I got it and it made sense that people are visual learners so need to see what they are going to do. I've kept using a whiteboard and markers. I always explain what we are going to do by using it. The players love it.

The use of a whiteboard and markers was the format chosen by coach educators to develop and engage visual learners in their learning and their use was explained as being valuable for players with a visual learning style. Tom indicated "when talking about whiteboards it was these would be beneficial for visual learners." Similarly, Sam said:

> [Coaches were] encouraged to use [a] whiteboard and markers, the magnetic ones. He [coach educator] said some people learn visually so you had to use various ways of communicating to help them learn by seeing it.

This use of an aid to support the discussion on learning styles and the practical use of a whiteboard during the FA Level One appears to have reinforced not only the value of visual aids but also the rhetoric of learning styles.

The whiteboard was the one learning aid that coaches continued using after their FA Level One to support learners. On the FA level One course the coaches in this study attended, coach educators encouraged the use of varied forms of visual media to support visual learners, albeit the coaches in this study suggested it was the whiteboard that was the real take home tool for a coach to engage and develop visual learners. Andy stated "your whiteboard, that's a good one [for visual learners] even like animations or a video, people might be able to understand it more." Similarly Tom stated:

> I used the whiteboard last night for a match. I use it to explain the positions, how you can use time and space, to write rules, any behavioral things I use it more as an anchor for the boys and a tool to reflect.

This explanation from Tom suggests that there is a lack of understanding regarding the use of a white board to support learning. Tom's initial reaction suggests the white board is used to support player development and learning particularly in support of tactical explanations. Tom then discussed, however, that he uses a whiteboard for additional purposes outside of player learning, such as behavior management, suggesting that the whiteboard is a coaching tool rather than a learning aid.

Learning Styles as a Standard Discourse

The second higher order category refers to coaching practice and the continued role, opinions, and knowledge developed through experiences on coach education. Specifically, this involves the single belief in learning styles, being focused on four different perceptual preferences and the coaches continued belief in VARK learning styles.

Single Continuing Belief in Learning Styles ~~Being Focused on Four Different Perceptual Preferences [please shorten header to fit on one line]~~

Following the introduction of learning styles in the form of VARK at the FA Level One, the coaches in this study continued to utilize the notion that their players learned through an individual sensory preference within their coaching practice twenty-four months after their attendance on the FA Level One course ~~[course?]~~. Andy stated:

> I think the more learning styles you incorporate in to your training the better... So… you still want to use your whiteboard and draw out where you want people to be for the visual learners and when it comes to talking keep it clear for the aural leaners.

Similarly, Rebecca confirmed she still believes her players learn through VARK learning styles and coaches accordingly. Rebecca suggested:

> I guess I got [from the FA Level One] that players are different, they learn differently some players will be visual learners, some aural and some kinesthetic so they learn by doing. When I'm coaching I try to be aware of that and make sure they can all learn and understand because I work with those learning styles if you know what I mean.

This suggests that Rebecca views her players through the VARK learning styles she perceives they have and adapts her communication to use varied methods, which allow her to meet the needs of a varied range of VARK learning styles.

The learning styles discussed and catered for within their current coaching practice by the coaches in this study were focused exclusively on four distinctive perceptual preferences. This was exemplified by Ian who stated that:

> Everyone's different and every kid is different and you have to adapt to them as well I mean, you can only get across to people in their own certain way.

Michelle likewise discussed the VARK learning styles and their continued use by saying:

> Yeah there are always people who learn differently, Not all learners are the same so in order for you to reach out you have to use what you can. Whiteboard for visual learners. The right language and tone for aural learners. You know keep it simple so they can learn in their way.

The belief in VARK learning styles that was discussed by the coaches in this study originated during the FA Level One course~~[course?]~~, and catering to these learning styles

remained a key part of the coaches' communication when they were leading session twenty-four months after their attendance on the FA Level One. Tom was clear about the different ways the learning styles were incorporated in his coaching sessions stating:

> I think the more repetition of the styles of learning the better the learning, so the more I repeat stuff for aural learners the more visual learners see stuff and the more kinesthetic learners do stuff, the quicker they will learn. I still believe that now and use that now.

Meanwhile Sam said:

> Yeah it [VARK learning styles] relates to everyone in age so everyone has different ways in learning, so what I have learnt is a way of adapting to [different] people with every session and how I coach and communicate in those sessions.

This suggests that the coaches' willing engagement in practice introduced by coach educators on the FA level One included focusing their communication on VARK learning styles and this practice was continued after the end of the course.

Discussion

The aim of the study was to examine the way in which learning styles were discussed during the FA Level One Coaching Course and explore the assumptions introduced to FA Level One coaches by coach educators regarding the way soccer players learn. As such, this research contributes new insight into the practice of sports coaching and it compliments contemporary "coaching environment" literature that proposes strategies to manage the learning environment of soccer players.

The findings of this study suggest that when novice coaches attend coach education courses, they model the behaviors displayed and coaching practice observed almost unquestionably. Stephenson and Jowett (2009) suggested that while coach education has a role to play in the development of a coache's practice, it should not be relied upon exclusively. Despite the coaches in this study unquestioning advocacy of the FA Level One, previous research has highlighted the limitations of coach education (Morgan 2006; Jones, , Armour, and Potrac and Potrac –2003). This study further contributes to this analysis because of the inclusion of the unabated support displayed for VARK learning styles by coach educators.

This study suggests that FA Level One Coaches believe their players learn through a specific learning style that is directly linked to a perceptual preference. Learning styles are anticipated to be the concept that individuals differ in the form of instruction or study that is most effective for them whilst learning (Pashler et al. 2008) and FA Level One Coaches understand learning styles to be focused purely on senses. Whilst iDespite it is -being a common hypothesis of advocates of learning styles theory, thatwhich implies the information being learned should be presented and matched to the learning style of the student or player [this sentence is incomplete — unclear if it should be "attached" to prior or following sentence] (Riener and Willingham 2010; Pashler et al. 2008) criticism of learning styles proposes that there is limited theoretical underpinning to such proposals (Coffield 2012). The results of this study however, suggest that FA Level One Coaches are not made aware of how the learning process works, the inefficiency of learning styles, or the nuances of learning styles.

The tendencypreposition [word choice?] of FA Level One Coaches is firstly to identify the learning styles of their players and then cater to the needs of their players, by supplying instruction and activities that meet the players' perceived VARK learning style. This is, however, of concern as research from education states that while students do have preferences for the format information is presented in, teaching to specific learning styles has limited impact on the rate of learning (Riener and Willingham 2010). Research suggests that the learner should still

remain at the center of the education process however the task being learnt should guide the learning activities and the teacher's communication (Riener and Willingham 2010).

The FA Level One Coaches involved in this study firmly believe their players learning is affected by the format of instructions and activities; moreover, a belief is present that for their players to learn quickly and effectively, their individual VARK learning style must be catered to. This is in stark contrast to the research from Riener and Willingham (2010) who observe that the task being taught and not the athletes' or sports players' preference should guide the communication and activities being participated in. This, therefore, means that while the coaches in this study may believe their player has a specific VARK learning style, the focus of a soccer practice and the coaches' communication should be led by the skill or tactic being taught. As such, confusion can be seen with FA Level One Coaches where learning styles are perhaps being muddled with methods of communication. While a method of communication can be classified as VARK, due to the message being communicated being sent by either visual~~ly~~, aural~~ly~~, or via reading channels, education research suggests the process of learning should not be confused with a method of communication (Riener and Willingham 2010; Pashler et al. 2008). Learning is a process that occurs as a direct result of practice or experience (Schmidt and Lee 2011). As a result, The FA should reflect and contemplate carefully on the scientific evidence available to support content in the FA Level One course and its application to practice (Stephenson and Jowett 2009).

Conclusion

The aim of the study was to a) establish whether entry-level coaches are introduced to the concept of learning styles in coaching awards, and b) investigate perceptions held by coaches regarding the validly of learning styles and identify the way in which soccer coaches believed they utilized knowledge on learning styles. The direct way FA coach education informs entry-level coaches of learning styles has been presented in the findings of this study. Alongside this discussion on the promotion of learning style by coach educators is a presentation of coaches' unabated belief that their players possessed a specific learning style, a belief that was held long after the completion of their entry-level coaching award. In their role as a National Governing Body, the FA has a responsibility to ensure that its coach education courses are teaching accurate and appropriate methods of teaching and learning practice. While historically learning styles have been seen as being central to the learning process, current research challenges this assumption, and coach education programs need to react and adapt as the volume of evidence mounts disavowing~~condemning [word choice – perhaps "disavowing"?]~~ learning styles.

Criticism of learning styles research comes from a number of areas, including poor reliability, the lack of a concrete explanatory framework, and the failure to link learning styles to achievement. Despite this criticism, soccer coaches are being encouraged, through entry-level coach education, to tailor activities and instructions to a player's individual learning style. This is not only ill-advised, as it may not accelerate learning, but it may, in addition, restrict learning if players believe their learning style is not being catered to. While learning styles propose a simplistic method for a coach to cater to the individual differences of their players, a false environment is being created and learning is not being assisted, despite the best efforts of the coach. Instead of the learning style of an individual guiding the teaching practice of a coach, the task being learned should guide the communication and practice activities.

Based on the research carried out, further investigation needs to be rendered to explore alternative solutions to enable soccer coaches to understand their players' performance and development. This should include an investigation of coach education and the role it plays in educating entry-level coaches on how players learn.

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2. Journal requirements are that you include references only where there is a corresponding in-text citation. Below, I have noted those that appear to not have a corresponding citation]

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ABOUT THE AUTHORS

Claire Mulvenna: Lecturer Physical Education and Sport Coaching, Department of Psychology and Pedagogic Science, Faculty of Sport, Health and Applied Science, St Mary's University, London, UK

Mark Moran: Senior Lecturer Sport Coaching, School of Sport and Biological Science, University of Bolton, Manchester, UK

Anika Leslie-Walker: Lecturer Community Sport Development, School of Sport and Biological Science, University of Bolton, Manchester, UK